

## 6.0 Indirect/Secondary Impacts

This chapter considers the potential indirect impacts of the US 53 project. The terms “effect” and “impact” are used synonymously in the Council on Environmental Quality (CEQ) regulations (40 CFR 1508.8). “Secondary impact” does not appear, nor is it defined in either the CEQ regulations or related guidance. However, the term is used in the Federal Highway Administration’s (FHWA) guidance (with the same definition as the CEQ definition of indirect impact). For the purpose of this discussion, secondary and indirect impacts are assumed to have the same meaning, and indirect will be used in this section.

### 6.1 Methodology

The CEQ has defined direct and indirect impacts (40 CFR 1508.7). **Direct impacts** are impacts caused by the proposed action and occur at the same time and place. As discussed throughout Chapters 3: Transportation Analysis, 4: Community and Social Analysis, and 5: Physical and Environmental Analysis of this Draft Environmental Impact Statement (EIS), direct impacts are typically those that can be measured immediately after completion of the project (e.g., acres of land acquired or wetlands filled).

According to the CEQ, an **indirect impact** is caused by a specific project or action but later in time or farther away, yet is still reasonably foreseeable. Indirect impacts may include growth-inducing effects related to changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems. Indirect impacts were evaluated considering appropriate geographic boundaries and timeframes. **Figure 3.1-1** shows the area’s regional transportation network with forecast average daily traffic (ADTs), which provides a reference for areas where there are traffic volume changes due to the project (No Build Alternative and background growth) which may influence local land use changes. The time frame considered for indirect impacts was generally defined as the years immediately following the termination of the existing easement agreement area (post 2017).

This analysis compares alternatives with respect to indirect impacts (i.e., potential land use/development pattern changes) that may occur as a result of project, including changes in highway location, traffic volumes, traffic patterns, and/or access to the transportation system. If a potential indirect impact on land use was identified, an assessment of potential environmental impacts resulting from that land use change was also performed.

### 6.2 Consequences and Mitigation

#### 6.2.1 No Build Alternative (Easement Agreement Area Closed)



Under this alternative, the existing easement agreement area along a portion of US 53 would be abandoned and traffic would be rerouted to MN 37, Co. 7, and US 169. Traffic would also be expected to increase on Co. 101 even though it would not be signed as the route for US 53. Traffic volumes are expected to increase substantially on these roadways. As detailed in Section 3.1.1, in 2017 (the year the US 53 closure would occur) average daily traffic volumes are expected to increase compared to existing volumes by up to 214 percent along MN 37, 323 percent along Co. 7 south of Co. 101, and 137 percent along US 169 just west of Virginia (Traffic Analysis Technical Report, CH2M Hill, 2013). Expected changes in travel patterns and traffic volumes on the rerouted roadways are shown in **Figure 3.1-3**. These could result in shifts in land use and economic development, as described below.

Indirectly, as a result of these traffic volume forecast increases, interest may be generated in highway-related development or redevelopment opportunities along these roadways in Mountain Iron and Eveleth. As a result, land use could shift over time from predominantly residential/rural to more business and

commercial use. This increased development could result in impacts to wetlands, wooded areas, and other undeveloped areas that currently existing along these roadways. This could result in loss of wildlife habitat and visual changes within the corridors. With more development and potentially more people located near transportation corridors, the number of receptors exposed to roadway noise may also increase. Future development may also necessitate the construction of supporting infrastructure, such as local access roadways and utilities. Therefore, increased development could result in increased tax base and an increase in employment in Mountain Iron and Eveleth.

Conversely, traffic volumes are forecast to drop from an ADT of 17,150 vehicles per day to 7,900 vehicles per day in 2017 near 12th Avenue on the remnant segments of US 53. Because the No Build Alternative drastically changes traffic patterns around the city of Virginia, businesses along US 53 in the Midway area and between 2nd Avenue and US 169 would experience less visibility and require longer trips to reach. Many of the businesses, particularly in the area closer to Virginia, generate a significant amount of business by people driving by (fast food, grocery, gas station, etc.), resulting in substantial decreased business volume along these disconnected segments of US 53. Some residents of the Iron Range already shop in the Duluth area for destination retail goods and services. Given the larger concentration and variety of retail stores and services in Duluth, some shoppers would change their shopping patterns due to the increases in travel times to combine purchases of goods that they currently buy in Virginia to more frequent trips to Duluth, diverting sales from the Virginia retail areas to stores in Duluth. The level of economic impact to local businesses has been evaluated as part of the Highway 53 Relocation Economic Impact Study (McComb Group and SEH, 2014), which found that due to reduced accessibility/visibility to existing businesses along US 53, it is expected that the No Build Alternative would present a high potential for reduced revenues, business closures, job losses, and reductions in local tax base and general property tax revenues in Virginia.

It is also expected that some traffic between Gilbert and Virginia would not use the designated US 53 reroute but would instead use Co. 101 (until its potential closure in 2024) and MN 37 to access Co. 7. This is anticipated to result in a 253 percent increase in traffic on Co. 101 adjacent to Eveleth, and a 164 percent increase in traffic on MN 37 leading into Gilbert. The increased traffic on Co. 101 would also use Co. 7 north of Co. 101, which is projected to increase volumes on that segment from 2,250 vehicles today to 23,200 vehicles in 2017 (an increase of over 900 percent).

## 6.2.2 Existing US 53 Alternative (Easement Agreement Area Remains Open)



If the existing US 53 alignment remains, the roadway will remain open to traffic and no significant increases in daily traffic volumes are anticipated from what occurs today. No indirect impacts are anticipated relative to land use or other impact categories such as wetlands or natural areas.

However, as an indirect result of making a large volume of ferrous resources inaccessible to mining (i.e., by the Minnesota Department of Transportation (MnDOT) purchasing the mineral rights), this alternative is expected to have potential long term impacts on the Quad Cities economy. The exact nature and extent of all potential indirect economic impacts of reduced taconite production in the area is not possible to forecast but would include businesses in the Quad Cities and industries in Minnesota that support ferrous resource mining, with additional indirect economic impacts to occur for businesses outside of Minnesota.

## 6.2.3 Alternative M-1



Minimal changes to businesses along US 53 would be expected given that the traffic patterns would not change substantially under this alternative due to the limited possibility of induced changes in land use or traffic. The lands adjacent to Alternative M-1 would not be likely to change in their use, as they are primarily disturbed land within an active mine. However, the land outside the mine lands near the new intersection locations for 2nd Avenue (via the new Southern Drive intersection) and for MN 135 may experience a change to highway-related commercial business such as gas stations, convenience stores, coffee shops, or restaurants given changes in access and visibility. A number of these parcels are currently vacant or underdeveloped and may be available for

new or redevelopment opportunities. If these parcels have wetlands, the proposed developments would be required to comply with current wetland permit requirements, including mitigation plans.

#### 6.2.4 Alternative E-1A



Minimal changes to businesses along US 53 would be expected given that the traffic patterns would not change substantially under this alternative due to the limited possibility of induced changes in land use or traffic. The lands adjacent to Alternative E-1A would not be likely to change in their use, as they are on state land primarily reserved for recreational or mining use, or on land that is already developed. However, the land outside the mine lands near the new intersection locations for 2nd Avenue and for MN 135 may experience a change to highway-related commercial business such as gas stations, convenience stores, coffee shops, or restaurants given changes in access and visibility. A number of these parcels are currently vacant or underdeveloped and may be available for new or redevelopment opportunities. If these parcels have wetlands, the proposed developments would be required to comply with current wetland permit requirements, including mitigation plans.

#### 6.2.5 Alternative E-2



Minimal changes to businesses along US 53 would be expected given that the traffic patterns would not change substantially under this alternative due to the limited possibility of induced changes in land use or traffic. The lands adjacent to Alternative E-2 would not be likely to change in their use, as they are on state land primarily reserved for recreational or mining use or on land that is already developed. However, the land outside the mine lands near the new intersection locations for 2nd Avenue and for MN 135 may experience a change to highway-related commercial business such as gas stations, convenience stores, coffee shops, or restaurants given changes in access and visibility. A number of these parcels are currently vacant or underdeveloped and may be available for new or redevelopment opportunities. If these parcels have wetlands, the proposed developments would be required to comply with current wetland permit requirements, including mitigation plans.